



DUST  
HAZARD



# Filter

## Sampling Essentials



# World Leader in Sampling Technologies

SKC maintains its position as world leader in sampling technologies by developing new and innovative products of high quality to meet the evolving needs of health and safety professionals. Our commitment to this field is demonstrated through our complete line of sampling pumps, media, and accessories to meet OSHA, NIOSH, and EPA methods. **In particular, the Omega Specialty division of SKC is focused on new and existing product applications for filters.** SKC products are supported by scientists including aerosol physicists, chemists, and industrial hygienists, and engineers. In addition, the SKC Customer Service staff and website are unmatched in the industry.

SKC is pleased to release this publication featuring Filter Sampling Essentials. Look inside for information on your sampling needs to evaluate particulate matter.

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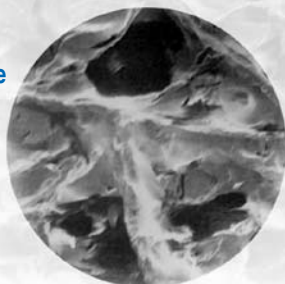
As always, the SKC Technical Support Team is available to provide the fast and accurate answers you need. Email [skctech@skcinc.com](mailto:skctech@skcinc.com) or call the Technical Support Hotline at 800-752-8472.

**Your satisfaction is our #1 goal!**

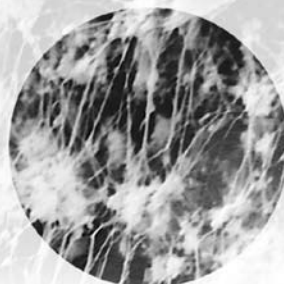
# PTFE (Teflon) Membrane Filters

Ideal for Aggressive Chemical Environments

- Hydrophobic
- Low background, interference-free chemical determinations
- Strong and resistant to:
  - Acids, bases, and solvents
  - Temperatures up to 527 F (275 C); autoclavable



5.0-µm and 60-µm pore sizes



0.5-µm, 1.0-µm, and 2.0-µm pore sizes

Diameter (mm)	Pore Size (µm)	Support Pad <sup>‡</sup>	Notes	Cat. No.	Qty.
13	5.0	No	unlaminated	225-17-03	100
25	0.5	No	with laminated PTFE support	225-2708	100
25	1.0	No	with laminated PTFE support	225-2714	100
25	2.0	No	with laminated PTFE support	225-2726	100
25	3.0	No	with PMP support ring	225-1711	50
25	5.0	No	unlaminated	225-1728	50
37	0.45	Yes	on polypropylene support	225-17-04	100
37	0.3	No	for <i>Anthrax</i> /SARS	225-1722	100
37	1.0	Yes	on polypropylene support	225-17-01	100
37	1.0	Yes	with laminated PTFE support	225-2705	50
37	2.0	Yes	with laminated PTFE support	225-27-07	50
37	2.0	No	with PMP support ring	225-1709	50
37	5.0	Yes	unlaminated	225-17A	50
37	10.0	No	unlaminated	225-1729	100
47	0.5	No	with laminated PTFE support	225-2753	50
47	1.0	No	with laminated PTFE support	225-2749	50
47	2.0	No	with PMP support ring	225-1747	50
47	2.0	No	with laminated PTFE support	225-2748	50
47	5.0	No	unlaminated	225-1724	100
47	60.0	No	unlaminated	225-1755	100
<b>Specialty Filter for Respicon Sampler</b>					
37	0.5	No	with PTFE support and hole for the Respicon Sampler	225-1762	50

<sup>‡</sup> Filter support pads available on page 14

## Preloaded PTFE (Teflon) Filters

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Filter Specifications	Cassette Description/Notes	Cat. No.	Qty.
25	PTFE, 1.0 µm, with PTFE support and polypropylene pad	2-pc conductive, goblet style	225-1725	50
25	PTFE, 1.0 µm, with cellulose support	2-pc conductive, goblet style	225-1716	50
25	PTFE, 1.0 µm, with polypropylene support pad	2-pc black conductive, goblet style	225-1751	50
25	PTFE, 2.0 µm, with 60-µm laminated support and polypropylene support pad	2-pc black conductive, goblet style	225-1750	50
37	PTFE, 0.3 µm, with cellulose support	3-pc clear styrene, banded	225-1723	50
37	PTFE, 2.0 µm, with cellulose ring	2-pc plastic, banded	225-1713	50
37	PTFE, 1.0 µm, with PTFE support	3-pc clear styrene, banded	225-1715	50

## Sampling for Lactic Acid

The pharmaceutical industry has designated lactic acid powder as the surrogate particulate material to detect fugitive emissions from drug compounding and pill manufacturing. Upon request, Omega Specialty (a division of SKC) developed a 25-mm conductive polypropylene cassette with 1.0-µm PTFE filter and polypropylene support pad that minimizes wall losses and permits in situ extraction for enhanced recovery of lactic acid at nanogram levels.

**Preloaded 25-mm, 2-pc conductive polypropylene cassettes with supports, pk/50**  
 Cat. No. ....225-1725

## Tech Tips

- ▶ Back pressure on PTFE (Teflon) filters can vary within the same lot.
- ▶ It is not necessary to use a support pad when sampling with a laminated PTFE filter.

## Sampling for Anthrax or SARS

SKC 37-mm, 0.3-µm PTFE filters laminated to spun-bound polyester are the NIOSH-preferred filter for sampling the Severe Acute Respiratory Syndrome (SARS) virus and the *Anthrax* bacterium. Sterilization is not required; analysis is very specific and has no interferences.

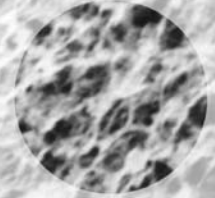
**37-mm Filters only, pk/100**  
 Cat. No. ....225-1722

**Preloaded 37-mm, 3-pc clear styrene cassettes with cellulose supports, pk/50**  
 Cat. No. ....225-1723

# Mixed Cellulose Ester Membranes

## A Gold Standard for IH Sampling

The standard filter for most aerosol sampling in industrial hygiene applications, mixed cellulose ester (MCE or MEC) membrane filters are comprised of pure, biologically inert mixtures of cellulose acetate and cellulose nitrate. MCE membranes are naturally low in metal background and are compatible with dilute bases and acids and aromatic and aliphatic hydrocarbons. MCE filters are hydrophilic, wet easily with water, and are autoclavable.



## ABOUT

### SKC MCE Membranes

- Meet NIOSH and OSHA method specifications for monitoring airborne metals, asbestos, and other fibers
- Dissolve and clear completely
  - Pure – low artifacts
  - Minimal interference in fiber counting
  - Standard digestion procedures
  - Gridded filters allow fiber counting
- MCE Filter Cat. No. 225-1913 complies with the following methods:
  - **MDHS 59 (U.K.)** — Man-made Mineral Fibre, Airborne Number Concentration by Phase-Contrast Light Microscopy
  - **MDHS 91 (U.K.)** — Metals and Metalloids in Workplace air by X-ray Fluorescence Spectrometry

### MCE Filters

Diameter (mm)	Pore Size (µm)	Support Pad <sup>‡</sup>	Notes	Cat. No.	Qty.
25	0.45	No		225-1911	100
25	0.8	Yes		225-19	100
25	0.8	No	use with IOM	225-1930	100
25	0.8	No	black grid	225-1913	100
25	1.2	No		225-1912	100
37	0.45	No		225-1914	100
37	0.45	Yes		225-9	100
37	0.8	No		225-1939	100
37	0.8	Yes		225-5	100
37	0.8	No	black grid	225-334	100
37	1.2	No		225-1923	100
37	5.0	No		225-1938	100
47	0.45	No		225-506	100
47	0.8	No		225-504	100
47	1.2	No		225-1921	100
102	0.8	No		225-1916	25

<sup>‡</sup> Filter supports available on page 14

## ABOUT

### Filters for the Respicon Sampler

The Respicon Sampler traps airborne particles onto three individual collection filters. SKC offers filters specially cut for the Respicon Sampler in the following materials:

- MCE (*see at right*)
- PVC (*see page 7*)
- Glass fiber (*see page 8*)

### Specialty MCE Filters for Respicon Sampler

Diameter (mm)	Filter Specifications	Cat. No.	Qty.
37	5.0 µm, with hole for Respicon Sampler	225-1922	100
37	0.8 µm, with hole for Respicon Sampler	225-1941	100

### Matched-weight MCE Filters

Diameter (mm)	Filter Specifications	Cat. No.	Qty.
37	MCE, 0.8 µm, matched-weight within 50 µg, filter pairs only*	225-532*	50
47	MCE, 0.8 µm, matched-weight within 50 µg, filter pairs only*	225-531*	50

\* Not preloaded in cassettes

## ABOUT

### ACCU-CAP Filter Inserts

ACCU-CAP inserts are dome-shaped filter capsules molded of clear static-dissipative plastic and heat-sealed to a filter. ACCU-CAPs fit in between the parts of a two-piece cassette with support pad. Containment of the sample within the capsule prevents cassette wall losses. See ACCU-CAP MCE Filter Inserts at right.

### ACCU-CAP MCE Filter Inserts

Clear plastic capsules heat-sealed to an MCE filter; fit between parts of a 2-piece cassette with support pad; prevent cassette wall losses

Diameter (mm)	Pore Size (µm)	Cat. No.	Qty.
25	0.8	225-8506	60
37	0.8	225-8514	60



# Certified BestChek Asbestos Cassettes


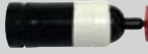


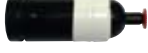
The Highest Standard for Cassette Reliability

## SKC BestChek® Asbestos Cassettes – Know the Difference

Only from SKC — cassettes that meet NIOSH, OSHA, and ASTM standards in Count, Clearing, Conductivity, Collection Area, and Construction (the 5 C's of asbestos cassettes — see right)

## SKC Certified BestChek Filters in Carbon-filled Polypropylene Cassettes

All SKC preloaded asbestos filters include cellulose supports.

Diameter (mm)	Filter Specifications	Cassette Description	Cat. No.	Qty.
25	MCE, 0.8 µm	with cowl, banded	225-321	50
				
25	MCE, 0.8 µm	with cowl, banded, with stand-up plug in outlet end	225-321A	50
				
25	MCE, 0.8 µm, black grid	with cowl, banded	225-326	50
				
25	MCE, 1.2 µm, black grid	with cowl, banded	225-1934	50
				
25	MCE, 0.45 µm TEM analysis	with cowl, banded, with support and 5.0-µm diffuser pad	225-327	50
				

## Matched-weight MCE Filter Cassettes

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Filter Specifications	Cassette Description	Cat. No.	Qty.
25	MCE, 0.8 µm, matched-weight within 50 µg	2-pc clear styrene, banded	225-525	50
37	MCE, 0.8 µm, matched-weight within 100 µg	3-pc clear styrene, banded	225-3-02	50
37	MCE, 0.8 µm, matched-weight within 50 µg	2-pc clear styrene, banded	225-502	50
			225-527	12
37	MCE, 0.8 µm, matched-weight within 50 µg	3-pc clear styrene, banded	225-503	50
			225-528	12

## Preloaded MCE Filters

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Filter Specifications	Cassette Description	Cat. No.	Qty.
25	MCE, 0.8 µm	3-pc clear plastic, banded	225-3100	50
25	MCE, 1.2 µm	3-pc black conductive, banded	225-507	50
37	MCE, 0.45 µm	3-pc black conductive, banded	225-1924	50
37	MCE, 0.45 µm	4-pc clear styrene, banded	225-1925	50
37	MCE, 0.8 µm	2-pc clear styrene, banded	225-508	50
37	MCE, 0.8 µm	3-pc clear styrene, banded	225-3-01	50
		3-pc clear styrene, banded	225-3-01A	500
		3-pc clear styrene, not banded	225-3-01NB	50

## ABOUT

### The 5 C's of Asbestos Cassettes

- Count**
  - Average background fiber count is less than 4 fibers per 100 fields
- Clearing**
  - Filter material clears thoroughly to meet method specifications and is suitable for PCM analysis
- Conductivity**
  - Cassette plastic contains over 18% carbon black for proper conductivity as tested using ASTM methods
- Collection Area**
  - Inside diameter varies by only ± 5 mm<sup>2</sup> for consistent collection area and minimized error
- Construction**
  - Certified leak-free; cassette parts manufactured with close tolerances, vacuum and pressure tested for leakage

**Specify SKC BestChek Asbestos Cassettes — your assurance of reliability and accuracy.**

## Microvacuum Cassettes

Microvacuum cassettes contain a nozzle that provides for easy sampling of asbestos in settled dust on surfaces as specified in ASTM D5755 and D5756.



25-mm 0.45-µm MCE filters, BestChek, in carbon-filled polypropylene cassette with cowl and nozzle, for TEM analysis  
Cat. No. .... 225-322



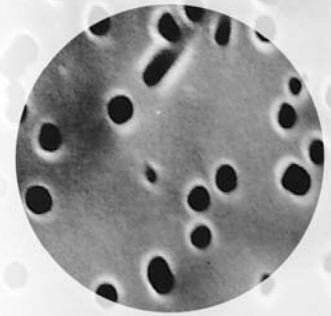
37-mm 0.45-µm MCE filters in styrene (non-conductive) cassette with nozzle, for TEM analysis  
Cat. No. .... 225-9543

# Polycarbonate Membrane Filters

## Tech Tips

▶ For microscopic analysis, collect the sample on the shiny (smooth) side of the polycarbonate filter. For gravimetric analysis, sample on the rough side.

- ❑ Smooth surface for superior particle capture
- ❑ Thin, transparent, and non-staining
  - Ideal for light and electron microscopy
  - Exceptional background for sample observations
- ❑ Superior chemical resistance, thermal stability, and strength
- ❑ Naturally hydrophobic
  - Exceptionally low tare weight
- ❑ Biologically inert



For cassette blanks  
see page 15

## Polycarbonate Filters

Diameter (mm)	Pore Size (µm)	Support Pad†	Notes	Cat. No.	Qty.
25	0.4	No		225-1608	100
25	0.8	No	use with IOM	225-1601	100
37	0.4	No		225-1609	100
37	0.8	No		225-1602	100
47	0.4	No		225-1610	100
47	0.8	No		225-1603	100

† Filter supports available on page 14

For filter sampling accessories  
see pages 16-17

## Preloaded Polycarbonate Filters

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Pore Size (µm)	Support Pad	Cassette Description	Cat. No.	Qty.
25	0.8	Yes	3-pc conductive, with cowl, banded	225-1604	50

## Microvacuum Cassette with Polycarbonate Filter

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Pore Size (µm)	Support Pad	Cassette Description	Cat. No.	Qty.
37	0.4	Yes	3-pc styrene (non-conductive) with nozzle; microvacuum	225-9542	ea

## Carpet Sampling Kit for Asbestos or Fungal Spores

Description	Cat. No.	Qty.
Carpet Sampling Kit includes 10 microvacuum cassettes (Cat. No. 225-9542 — see above), 10 x 10-cm disposable templates, Luer adapters, zip bags, and labels	225-9540	ea

For sample pumps  
see pages 18 to 23

# GLA-5000 PVC Filters

## A Tradition of Quality

- ❑ Suitable for multiple NIOSH/OSHA air sampling methods
  - Silica, metals, dust
- ❑ Low ≤ 1% ash content
  - Interference-free silica determinations
- ❑ Low tare weight and moisture pickup for gravimetric stability
  - ≤ 0.5% after 24 hours at 48% RH and 122 F (50 C)



## ABOUT

### ACCU-CAP Filter Inserts

ACCU-CAP inserts are dome-shaped filter capsules molded of clear static-dissipative plastic and heat-sealed to a filter. ACCU-CAPS fit in between the parts of a two-piece cassette with support pad. Containment of the sample within the capsule prevents cassette wall losses. See ACCU-CAP PVC Filter Inserts at left.

## PVC Filters

Diameter (mm)	Pore Size (µm)	Support Pad <sup>‡</sup>	Cat. No.	Qty.
25	5.0	No	225-8-04	100
			225-804K	1000
37	5.0	Yes	225-8-01	50
			225-80601K	1000
37	5.0	No	225-8-01-1	50
47	5.0	No	225-809	100

<sup>‡</sup> Filter supports available on page 14

## ACCU-CAP PVC Filter Inserts

Clear plastic capsules heat-sealed to a filter; fit between parts of a 2-piece cassette with support pad; prevent cassette wall losses

Diameter (mm)	Pore Size (µm)	Cat. No.	Qty.
37	5.0	225-8516GLA	60

## Matched-weight PVC Filters

Diameter (mm)	Filter Specifications	Description	Cat. No.	Qty.
37	5.0 µm, matched-weight within 25 µg	Filter pairs only*	225-8222*	50

\* Not preloaded in cassettes

## Specialty PVC Filter for Respicon Sampler

Diameter (mm)	Filter Specifications	Description	Cat. No.	Qty.
37	5.0 µm, with hole for Respicon Sampler	No support pad	225-8990-R	100

## Preloaded PVC Filters

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Diameter (mm)	Filter Specifications	Cassette Description	Cat. No.	Qty.
25	5.0 µm	2-pc clear styrene, banded	225-8214	50
25	5.0 µm	3-pc clear styrene, banded	225-8215	50
37	5.0 µm	2-pc clear styrene, banded	225-802	50
37	5.0 µm	3-pc clear styrene, banded	225-803	50
37	5.0 µm, preweighed 5 decimal	2-pc clear styrene, banded	225-8204	12
			225-8205	100
37	5.0 µm, preweighed 5 decimal	3-pc clear styrene, banded	225-8208	12
			225-8209	100
37	5.0 µm, matched-weight within 25 µg	2-pc clear styrene, banded	225-8201	50
37	5.0 µm, matched-weight within 25 µg	3-pc clear styrene, banded	225-8202	50

## Tech Tips

▶ A typical filter has a rough side and a shiny side. The shiny side is easier to read under a microscope, therefore, expose the shiny side to the air when collecting samples for microscopic analysis. The rough side holds dust more effectively; expose the rough side for gravimetric sampling.

▶ Filter pore size ratings are based on liquid filtration ratings. Filters will retain much smaller particles from air (e.g., a 0.8-µm liquid rated filter will retain > 50% of particles as small as 0.08 µm).

▶ Use 25-mm preloaded PVC filter Cat. No. 225-8214 or 225-8215 for sampling welder exposure to hexavalent chromium as specified in OSHA Method ID-215 (V. 2). The smaller cassette fits more easily under a welder's helmet. For a convenient Helmet Adapter, see page 17.



For cassette blanks  
see page 15

## Glass Fiber Depth Filters

### ABOUT

#### Pore Size Rating

**Q:** What is the pore size rating of a depth filter?

**A:** The pore size rating for all filters is a “liquid” filtration rating — a liquid containing particles of a certain size is passed through the filter to determine pore size. Depth filters are actually fiber filters, i.e., a mat/weave of fibers with diameters of 0.1 to 100  $\mu\text{m}$ . Particle collection is throughout the depth of the filter from interception, impaction, and diffusion onto fibers. Therefore, due to the fibrous structure of these filters, a nominal pore size is determined.

#### High-temperature tolerant

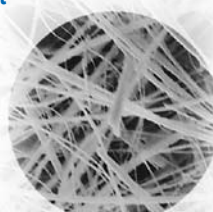
- Autoclavable

#### Liquid nominal pore size of 1.0 $\mu\text{m}$

#### High particle retention and wet strength

#### Binder-free borosilicate glass fiber eliminates interferences

- Ideal for gravimetric analysis



Dia. (mm)	Pore Size ( $\mu\text{m}$ ) <sup>Δ</sup>	Description	Cat. No.	Qty.
13	1.0	binder free, AE	225-16	500
25	1.0	binder free, AE	225-702	500
25	1.0	acrylic binder, extra thick (50 mil)	225-703	100
25	1.6	binder free, AE	225-58F	100
37	1.0	binder free, AE	225-7	500
37	—	Teflon coated	225-705	100
47	1.0	binder free, AE	225-7047	100
			225-714	500
90	1.0	Ultra pure	225-712	25
8 x 10 in	1.0	binder free, AE	225-7-07	100

Δ Liquid nominal

### Preloaded Glass Fiber Filters

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Dia. (mm)	Filter Specifications	Cassette Description	Cat. No.	Qty.
37	Glass Fiber, AE, 1.0 $\mu\text{m}$ <sup>Δ</sup> , cellulose support	2-pc clear plastic, banded	225-709	50
37	Glass Fiber, AE, 1.0 $\mu\text{m}$ <sup>Δ</sup> , cellulose support	3-pc clear plastic, banded	225-706	50

Δ Liquid nominal

### Specialty Glass Fiber Filters for Respicon Sampler

Dia. (mm)	Filter Specifications	Cat. No.	Qty.
37	1.0 $\mu\text{m}$ <sup>Δ</sup> , with hole for Respicon Sampler	225-715	100
37	1.0 $\mu\text{m}$ <sup>Δ</sup> , without hole for Respicon Sampler	225-716	100

Δ Liquid nominal

## Quartz Depth Filters

### ABOUT

#### Quartz Depth Filters

**Q:** What is the difference between Type R-100 and Tissuquartz depth filters?

**A:** Type R-100 filters meet specific requirements set forth by NIOSH — 99.97% retention efficiency for 0.3- $\mu\text{m}$  diocetylphthalate (DOP) particles up to a 200-mg filter loading.

Tissuquartz has a typical retention efficiency of 99.90% for 0.3- $\mu\text{m}$  DOP particles (following ASTM Method D2986-95A 0.3- $\mu\text{m}$  DOP at 32 L/min/100  $\text{cm}^2$  filter media).

Both types of quartz filter are binder free.

#### Superior purity for collection of elemental/organic carbon, DPM, and trace-level contaminants

- Heat treated to reduce trace organics
- Low-metal background
- Binder free



Dia. (mm)	Description	Cat. No.	Qty.
25	Tissuquartz	225-1825 <sup>‡</sup>	100
37	Tissuquartz	225-1822 <sup>‡</sup>	25
37	Type R-100	225-1827 <sup>‡</sup>	100
47	Tissuquartz	225-1823 <sup>‡</sup>	25
47	Type R-100	225-1830 <sup>‡</sup>	100
102	Tissuquartz	225-1821 <sup>‡</sup>	25
8 x 10 in	Tissuquartz	225-1820 <sup>‡</sup>	25

‡ 432  $\mu\text{m}$  thick # 380  $\mu\text{m}$  thick

### Preloaded Quartz Filters for DPM Sampling

All SKC preloaded filters include supports and are in SureSeal leak-free cassettes that require a SureSeal Cassette Opener (see p. 17).

Dia. (mm)	Filter Specifications	Cassette Description	Notes	Cat. No.	Qty.
37	Heat-treated quartz, support pad	3-pc clear styrene, banded	NIOSH 5040	225-401**	50

\*\* See page 11 for DPM Cassette with precision-jeweled impactor.

## Cellulose Depth Filters

#### Ideal for gravimetric sampling methods

#### 100% pure, ashless cellulose fiber

- Type 40: ashless, quantitative
- Type 4: qualitative

Dia. (mm)	Pore Size ( $\mu\text{m}$ )	Description	Cat. No.	Qty.
37	—	Type 40	225-18A	500
		Type 4	225-18B	500



## Gelatin Filters

### Preserve Viability of Microbes

Gelatin filters reliably retain bacteria and viruses and are routinely used to collect airborne microorganisms for quantitative analysis. The gelatin's inherent high-moisture content helps to maintain viability of stress-sensitive microorganisms for short sampling periods. Gelatin filters dissolve easily when placed on agar, allowing a gentle transition from sample medium to growth medium. *Refrigerator storage (4 to 8 C) is recommended. Avoid exposure to temperatures below 4 C, moisture, and chemical vapors.*

Filter sampling for bioaerosols is easy, efficient, and can provide information about relative changes in bioaerosol concentration throughout the day. However, filter sampling of less hardy microorganisms can reduce culturability due to desiccation. The use of gelatin filters can help to maintain viability during short sampling periods. For maximum culturability and superior collection of inhalable-size bioaerosols, combine gelatin filters with the SKC Button Sampler. See [www.skcinc.com/prod/225-360.asp](http://www.skcinc.com/prod/225-360.asp)

- Sterilized with gamma radiation
- High-moisture content
  - Maintains viability for short sampling periods
- Dissolve easily when placed on agar

Dia. (mm)	Support Pad	Notes	Cat. No.	Qty.
25	No	water soluble	225-9551*	50
37	No	water soluble	225-9552*	50

\* Limited shelf-life; refrigerated storage recommended

## Silver Membrane Filters

### Ideal for X-ray Diffraction Analysis

- Chemically inert and resistant to high temperatures
  - Sample aggressive contaminants
  - Autoclave repeatedly without loss of performance
- Smooth surface for high surface capture of particles and easy observation
- Economical
  - Can be cleaned and reused
- Uniform porosity and thickness

SKC silver membranes are made of 99.97% pure metallic silver for a strong, durable collection medium that is chemically inert and resistant to high temperatures. A smooth surface provides for superior collection of particles with a typical aerosol retention of 99.99%<sup>†</sup>. SKC silver filters can be autoclaved repeatedly without loss of form or performance.

Diameter (mm)	Pore Size (µm)	Cat. No.	Qty.
25	0.8	225-1803	50
25	0.45	225-1802	50
37	0.8	225-1801	25
47	0.8	225-1804	25

<sup>†</sup> 0.3-µm DOP at 3 L/min through 10 cm<sup>2</sup>

## Filters for the Respicon Sampler

Diameter (mm)	Filter Specifications	Cat. No.	Qty.
37	5.0 µm MCE, with hole for Respicon Sampler	225-1922	100
37	0.8 µm MCE, with hole for Respicon Sampler	225-1941	100
37	5.0 µm PVC, with hole for Respicon Sampler, no support	225-8990-R	100
37	1.0 µm <sup>Δ</sup> , glass fiber, with hole for Respicon Sampler	225-715	100
37	1.0 µm <sup>Δ</sup> , glass fiber, <b>without</b> hole for Respicon Sampler	225-716	100

<sup>Δ</sup> Liquid nominal

## ABOUT

### Using Gelatin Filters with the Button Sampler

Use gelatin filters with the SKC Button Sampler for maximum microorganism survivability and superior collection of inhalable-size bioaerosols. Combining the Button Sampler's exceptional particulate deposition uniformity and low intersample variation with the nurturing properties of gelatin filters creates a sampler that is most efficient at collecting inhalable bioaerosols for viable or non-viable analysis. For more information, go to [www.skcinc.com/prod/225-360.asp](http://www.skcinc.com/prod/225-360.asp).



**Reference:** Hauck, B., Grinspun, S., Reponen, A., Reponen, T., Willeke, K., Bornschein, R., "Field Testing of New Aerosol Sampling Method with a Porous Curved Surface as Inlet," *AIHA Journal*, Vol. 58, No. 10 (1997), pp. 713-719



For sample pumps  
see pages 18 to 23



For filter holders  
see page 12

# VersaTrap Spore Trap Cassette

Traps Smaller Mold Spores using Higher Flows

the VersaTrap

## Advantage!

- Uniform particle deposition**  
 Uniform rectangular deposition provides for accurate analysis using standard equipment.
- High collection efficiency at flows between 5 and 30 L/min**  
 Target specific size particles for true versatility. See table at bottom right for more information.
- Unique serial numbering for sample traceability**
- Positioning notches and flat edges on slide**  
 Fast, easy alignment on microscope stage

## Tech Tips

▶ VersaTrap Cassettes can be operated at 30 L/min to trap the smallest *Penicillium/Aspergillus* spores that other brand cassettes do not, plus VersaTrap provides a 150-liter sample in only 5 minutes.

### QuickTake 30 Pump ideal for spore traps

[www.skcinc.com/pumps/228-9530.asp](http://www.skcinc.com/pumps/228-9530.asp)



### More Information

See Tech Note 1649, "Performance of the VersaTrap Spore Trap Cassette."

[www.skcinc.com](http://www.skcinc.com)

- High collection efficiency from 5 to 30 L/min**
  - VersaTrap captures *Aspergillus* and *Penicillium* mold spores as small as 1.5 µm at 30 L/min
- A standard collection method for mold spore count and genus identification**
- Easy analysis**
  - Positioning notches and flat edges provide for easy alignment on microscope stage
  - Uniform, well-defined rectangular deposition
- Optimized slide adhesive**
  - Optically clear and tested for superior adherence
- SureSeal certified leak-free cassettes for sample integrity**
- Unique serial number on each cassette for sample traceability**



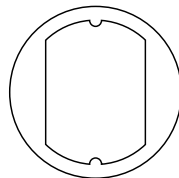
VersaTrap® spore trap cassettes provide the sampling versatility you need to capture mold spores and other particles ranging from 1.5 µm to 3.9 µm. Sampling is as easy as selecting the flow rate that will target the desired particle size (see table), calibrating a pump to the flow rate, and collecting the sample.

### VersaTrap Design

The narrow slit inlet focuses particles toward the clear glass slide that is coated with a fully optimized sticky substrate. Targeted size particles are effectively held in a well-defined rectangular footprint. Each slide is encased in a SureSeal certified leak-free cassette to ensure sample integrity.

### VersaTrap Makes Analysis Easy

- Slides are easily removed from the cassette
- Positioning notches and flat edges provide for fast, easy alignment
- Well-defined rectangular footprint for accurate analysis using standard equipment
- Unique serial numbers for sample traceability



High Flows + Low Cut-points + No Particle Bounce = High Collection Efficiency

Flow Rate (L/min)	VersaTrap 50% Cut-point (µm)
30.0	1.5
25.0	1.7
20.0	1.9
15.0	2.3
10.0	2.8
5.0	3.9

Description	Cat. No.	Qty.
VersaTrap Spore Trap Cassettes, 37 mm, limited shelf-life	225-9820	10
	225-9821	50
VersaTrap Wall Adapters, for sampling in wall cavities	225-9822	5

# Diesel Particulate Matter (DPM) Cassettes

For Elemental Carbon Analysis by NIOSH 5040

## DPM Cassettes with Submicron Impactor

### Collect submicron diesel particles

- Integral precision-jeweled impactor screens out particles  $\geq 1.0 \mu\text{m}$
- Heat-treated quartz filter collects submicron particles

### Optimum DPM collection efficiency

- The SKC DPM Cassette was evaluated at 1.7 L/min in metal/non-metal mines and 2.0 L/min in coal mines. These are flow rates used by MSHA.

### Sample integrity assured

- Heat-treated quartz filters assure low carbon background
- Designed for single use
- Tamper-evident seal



The SKC Diesel Particulate Matter Cassette is designed for sampling in atmospheres where it is necessary to differentiate DPM from other respirable dust (such as coal dust). Single-use SKC DPM Cassettes are tamper-evident sealed to ensure sample integrity. Loaded into each streamlined plastic cassette is a precision-jeweled impactor, impaction substrate, and two heat-treated quartz filters. The precision-jeweled impactor screens out respirable particles  $\geq 1.0 \mu\text{m}$ . Particles less than  $1.0 \mu\text{m}$  are collected on the filter. Samples are analyzed for organic and elemental carbon content using a highly sensitive Evolved Gas Analysis (EGA) technique with thermal-optical analyzer as specified in NIOSH Method 5040.

Diameter (mm)	Filter Specifications	Cassette Description	Notes	Cat. No.	Qty.
37	2 heat-treated quartz*	1-pc with precision-jeweled impactor, tamper-evident sealed	NIOSH 5040 analysis	225-317*	10

\* Limited shelf-life

## DPM Cassettes Without Impactor – NIOSH 5040

When it is not necessary to differentiate DPM from other respirable dust, perform more economical sampling by using the preloaded cassette (without impactor) containing a heat-treated quartz filter for sampling using NIOSH 5040.



Diameter (mm)	Filter Specifications	Cassette Description	Notes	Cat. No.	Qty.
37	Heat-treated quartz, support pad	3-pc clear styrene, banded	meets NIOSH 5040 specs	225-401	50

## DPM Sampling Accessories

Description	Cat. No.
<b>GS-1 Cyclone</b> , single inlet, 10 mm, conductive plastic, includes bowl adapter and 37-mm cassette adapter, for use with DPM Cassette to avoid filter overload by large particles	225-105
<b>Filter Cassette/Cyclone Holder</b> , for attaching a DPM or standard filter cassette to a worker's clothing in the breathing zone. May be used with or without a cyclone, required when using DPM Cassette with GS-1 Cyclone	225-1

## Tech Tips

### MSHA Final DPM Exposure Limit Takes Effect

After a two-year phase-in period, the MSHA final DPM exposure limit of  $160 \mu\text{g}/\text{m}^3$  total carbon became effective May 20, 2008 for underground metal and non-metal mines (71 FR 28924). For more information, go to:

- [www.msha.gov/REGS/FEDREG/FINAL/2006final/06-4494.pdf](http://www.msha.gov/REGS/FEDREG/FINAL/2006final/06-4494.pdf)
- [www.msha.gov/01-995/dieselpart-nmm.htm](http://www.msha.gov/01-995/dieselpart-nmm.htm)

## Tech Tips

► Use a GS-1 Cyclone and Filter Cassette Holder to obtain performance equivalent to the Dorr-Oliver Cyclone, with the added advantage of conductive plastic construction.

► Operate the GS-1 Cyclone at different flow rates for sharp particle size selection that meets your application.

Flow Rate (L/min)	Cut-point ( $\mu\text{m}$ )	Application
2.0†	4.0	ACGIH/ISO/CEN respirable convention
3.0†	3.5	Alternate applications
1.7 or 2.0	< 1.0	Sampling with DPM Cassette

‡ Trakumas, S., et al., "Performance Assessment of Personal Respirable Cyclone Samplers," AIHce Presentation 191, 2003

† Determined using experimental data obtained at flows from 2.0 to 4.0 L/min



DPM Cassette shown with GS-1 Cyclone in holder.

**More Information**  
For GS-1 Cyclone  
[www.skinc.com/prod/225-100.asp](http://www.skinc.com/prod/225-100.asp)

# ISO-CHEK

## Simultaneous and Separate Collection of Isocyanate Phases

the ISO-CHEK

### Advantage!

- ☑ **Simultaneous collection and separation of phases at the point of collection**  
Less time consuming and more accurate analysis of each phase
- ☑ **Reagent and samples are stable at room temperature.**
- ☑ **15-minute sampling time**  
Provides results that are more meaningful than those from the longer sampling times required by other methods
- ☑ **No handling precautions**  
No broken glass or splashing impinger liquid. No refrigeration is required.

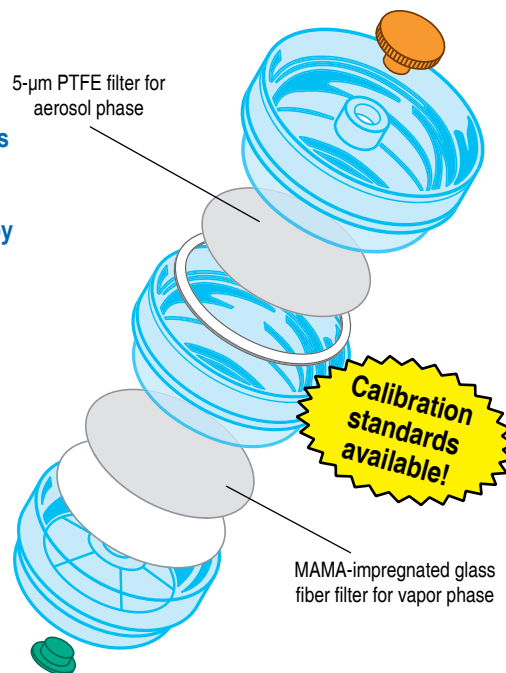
## ABOUT

- **ISO-CHEK Development**  
ISO-CHEK was developed and patented by IRSST (Institut de recherche Robert-Sauvé en santé et en sécurité du travail du Québec).
- **ISO-CHEK Laboratories**  
ISO-CHEK laboratories are certified following round-robin proficiency testing administered by the IRSST to ensure accurate, consistent analysis. *Contact SKC for information on the next ISO-CHEK training class for labs. Laboratory lists available at [www.skcinc.com](http://www.skcinc.com)*



*For sample pumps  
see pages 18 to 23*

- ☐ **Accurately samples diisocyanates: HDI, MDI, IPDI, HMDI, 2,4-TDI, and 2,6-TDI**
- ☐ **The only filter-based system that simultaneously traps and separates both monomers and oligomers**
  - For better determinations of control strategies
- ☐ **Decreases sample preparation and analysis time by 40% compared to other methods**
  - Pre-made calibration standards are available
- ☐ **Highly stable — minimizes storage and handling**
- ☐ **Highly sensitive analysis provides detection limits below current regulated exposure levels**
  - Ideal for occupational sampling and environmental surveys
  - Requires only a 15-minute sample time
- ☐ **Meets the specifications of several methods**
  - ASTM D5932 for 2,4 and 2,6-TDI
  - ASTM D6561 for HDI
  - ASTM D6562 for HDI
- ☐ **Round-robin proficiency testing for ISO-CHEK labs ensures accurate, consistent analysis**



*Exploded view of ISO-CHEK Filter Cassette  
(Cassette in image is tinted for clarification.)*

Suitable for most isocyanates, the patented<sup>‡</sup> ISO-CHEK<sup>®</sup> filter cassette employs a two-stage filter arrangement that results in the simultaneous collection and separation of vapor from aerosol at the point of collection. The filter that collects the vapor phase is treated with 9-(N-methyl-aminomethyl) anthracene (MAMA), a highly stable reagent that minimizes storage and handling requirements.

Description	Cat. No.	Qty.
<b>ISO-CHEK Sampling System with Derivatizing Reagent<sup>††</sup></b> , preloaded clear cassettes and jars of derivatizing solution (MOPIP)	<b>225-9023<sup>††</sup></b> <b>225-9023A<sup>††</sup></b>	<b>4</b> <b>10</b>
<b>ISO-CHEK Sampling System<sup>†</sup></b> , preloaded clear cassettes for isocyanates, requires Derivatizing Solution; see below	<b>225-9022<sup>†</sup></b> <b>225-9022A<sup>†</sup></b>	<b>12</b> <b>36</b>
<b>Accessories</b>		
<b>Derivatizing Solution<sup>††</sup></b> , 1-(2-Methoxyphenyl) piperazine (MOPIP), in jars	<b>225-9050<sup>††</sup></b>	<b>12</b>
<b>Jars</b> , 37 mm with PTFE-lined cap	<b>225-8377</b>	<b>36</b>
<b>Calibration Standard<sup>‡</sup></b> , MAMA-HDI, 1 gm	<b>225-9053<sup>‡</sup></b>	<b>ea</b>
<b>Calibration Standard<sup>‡</sup></b> , MAMA-HMDI, 1 gm	<b>225-9056<sup>‡</sup></b>	<b>ea</b>
<b>Calibration Standard<sup>‡</sup></b> , MAMA-IPDI, 1 gm	<b>225-9054<sup>‡</sup></b>	<b>ea</b>
<b>Calibration Standard<sup>‡</sup></b> , MAMA-MDI, 1 gm	<b>225-9062<sup>‡</sup></b>	<b>ea</b>
<b>Calibration Standard<sup>‡</sup></b> , MAMA-2,4-TDI and 2,6-TDI, 1 gm	<b>225-9052<sup>‡</sup></b>	<b>ea</b>
<b>Calibration Standard Set<sup>‡</sup></b> , HDI, MDI, IPDI, 2,4-TDI, 2,6-TDI, 1 gm each	<b>225-9055<sup>‡</sup></b>	<b>set</b>
<b>Packaging Kit</b> , materials for shipping 10 pkgs of 10 samplers and jars	<b>225-9059</b>	<b>10</b>
<b>Packaging Kit</b> , materials for shipping 20 pkgs of 4 samplers and jars	<b>225-9063</b>	<b>20</b>

<sup>\*</sup> Limited shelf-life

<sup>†</sup> Hazmat shipping charges for air shipments only, ground shipments exempt; not available for export

<sup>‡</sup> Limited shelf-life, freezer storage recommended; refrigerated shipping not required

<sup>#</sup> U.S. Patent No. 4,961,916 — see About at left

# Coated Filter Selection Guide

## For Agency Methods



- Economical
- Ready to use
- Convenient alternative to impingers
- Meet agency method specifications

Chemical	Method <sup>∞</sup>	Preloaded Filter; Coating (in 37-mm cassettes)	Cat. No.*	Qty.
Acetic anhydride	OSHA 82	2 Glass filters; 1-(2-pyridyl) piperazine	225-9009 <sup>§</sup>	10
Acetic anhydride	OSHA 102	2 Glass filters; veratrylamine and di-n-octyl phthalate	225-9010 <sup>†</sup>	10
4-Aminobiphenyl	OSHA 93	2 Glass filters; sulfuric acid	225-9004	10
Aniline	NIOSH 2017 <sup>‡</sup>	2 Glass filters; sulfuric acid	225-9004 <sup>‡</sup>	10
Arsenic, volatile compounds	OSHA ID-105	1 MCE filter and cellulose pad; sodium carbonate	225-9001	10
Benzidine	OSHA 65	2 Glass filters; sulfuric acid	225-9004	10
Bromine, Chlorine	NIOSH 6011	1 25-mm Teflon pre-filter and polypropylene support; 1 25-mm specially cleaned silver membrane and polypropylene support (in 25-mm cassette)	225-9006	5
Crotonaldehyde	OSHA 81	2 Glass filters; 2,4-dinitrophenylhydrazine and phosphoric acid	225-9019 <sup>§</sup>	10
o-Dianisidine	OSHA 71	2 Glass filters; sulfuric acid	225-9004	10
3,3'-Dichlorobenzidine	OSHA 65	2 Glass filters; sulfuric acid	225-9004	10
Diisocyanates (HDI; 2,6-TDI; 2,4-TDI)	ASTM D5836 <sup>Δ</sup> OSHA 42 <sup>‡</sup>	1 Glass filter and cellulose support; 1-(2-pyridyl) piperazine <sup>‡</sup>	225-9013 <sup>§†</sup> 225-9002 <sup>§</sup>	10 10
Diphenylamine	OSHA 78	2 Glass filters; sulfuric acid	225-9004	10
Fluorides	OSHA ID-110 NIOSH 7902 & 7906 ASTM D4765	1 MCE filter and cellulose pad; sodium carbonate	225-9001 <sup>‡</sup>	10
Fluoride, particulates	EPA 14A (Not TO-14A)	2 PVC filters and supports; sodium formate/Metricel <sup>®</sup> filter; uncoated	225-9016	10
Glutaraldehyde	OSHA 64	2 Glass filters; 2,4-dinitrophenylhydrazine and phosphoric acid	225-9003 <sup>§</sup>	10
Hydrazine	OSHA 108	2 Glass filters; sulfuric acid	225-9012	10
Isocyanates	ASTM <sup>‡</sup>	1 PTFE filter; 1 Glass filter treated with MAMA (ISO-CHEK Sampling System)	225-9022 225-9022A	12 36
Isocyanates, organic	MDHS 25/3 (U.K.)	1 25-mm AE Glass filter; methoxyphenyl piperazine <sup>∞</sup>	225-9011 <sup>§</sup>	5
n-Isopropylaniline	OSHA 78	2 Glass filters; sulfuric acid	225-9004	10
Maleic anhydride	OSHA 86	2 Glass filters; veratrylamine	225-9021 <sup>§</sup>	10
Mercaptans (methyl-, ethyl-, n-butyl-, and phenyl-)	NIOSH 2542 OSHA 26	1 Glass filter; mercuric acetate	225-9007 <sup>§</sup>	10
4,4'-Methylene bis (2-Chloroaniline) (MOCA)	OSHA 71	2 Glass filters; sulfuric acid	225-9004	10
Methylene bisphenyl (MDI)	OSHA 47 <sup>‡</sup>	1 Glass filter and cellulose support; 1-(2-pyridyl) piperazine <sup>‡</sup>	225-9013 <sup>§†</sup> 225-9002 <sup>§</sup>	10 10
4,4'-Methylenedianiline	OSHA 57 & NIOSH 5029	2 Glass filters; sulfuric acid	225-9004	10
1-Naphthylamine, 2-Naphthylamine	OSHA 93	2 Glass filters; sulfuric acid	225-9004	10
Nitrobenzene	NIOSH 2017 <sup>‡</sup>	2 Glass filters; sulfuric acid	225-9004 <sup>‡</sup>	10
Ozone	OSHA ID-214	2 Glass filters; nitrite-impregnated	225-9014 <sup>§</sup>	10
Phenylenediamine (o-, m-, p-)	OSHA 87	2 Glass filters; sulfuric acid	225-9004	10
Phosphine	OSHA 1003	1 Glass filter; 1 polyester filter treated with mercuric chloride	225-9018 <sup>§</sup>	10
Sulfur dioxide	NIOSH 6004 (modified)	1 MCE pre-filter and support/1 cellulose filter and support; sodium carbonate	225-9005	10
2,4-Toluenediamine	OSHA 65	2 Glass filters; sulfuric acid	225-9004	10
2,6-Toluenediamine	OSHA 65	2 Glass filters; sulfuric acid	225-9004	10
o-Tolidine	OSHA 71	2 Glass filters; sulfuric acid	225-9004	10
o-Toluidine	NIOSH 2017 <sup>‡</sup>	2 Glass filters; sulfuric acid	225-9004 <sup>‡</sup>	10
Toluidine (o-, m-, p-)	OSHA 73	2 Glass filters; sulfuric acid	225-9004	10
Valeraldehyde	OSHA 85	3 Glass filters; 2,4-dinitrophenylhydrazine and phosphoric acid	225-9020 <sup>§</sup>	10
m-Xylenediamine (m-XDA, p-XDA)	OSHA 105	2 Glass filters; sulfuric acid	225-9004	10

## Tech Tips

### Coated Filters for Diisocyanates

► While meeting the specifications of OSHA Methods 42 and 47, Coated Filter Cat. No. 225-9002 contains a higher than specified loading of reagent to increase stability and shelf-life. Coated Filter Cat. No. 225-9002 traps both vapor and aerosol phases. SKC also offers Coated Filter Cat. No. 225-9013 that contains the specified reagent loading for OSHA 42 and 47, but has a freezer shelf-life of only three months.



For sample pumps  
see pages 18 to 23

\* Coated filters have a limited shelf-life.

† Custom order due to very limited shelf-life

Δ ASTM D5836 and D5932 for 2,4-TDI, 2,6-TDI only

◇ Filters only; not preloaded in cassettes

§ Storage below 39.2 F (4 C) required

¥ Also requires Sorbent Tube Cat. No. 226-15, [www.skinc.com/tubes/sorbent\\_tubes.asp](http://www.skinc.com/tubes/sorbent_tubes.asp)

‡ See Tech Tip above.

# Collects both vapor and aerosol phases of fluorides. Patented in Canada by IRSST (Institut de recherche Robert-Sauvé en santé et en sécurité du travail du Québec), Patent No. 1,299,114

∑ Meets multiple ASTM methods

∞ See additional methods in the Sampling Guide [www.skinc.com/OSHA-NIOSH/default.asp](http://www.skinc.com/OSHA-NIOSH/default.asp)

## Filter Holders

### Filter Cassette Holder

#### For 25 and 37-mm Cassettes

This lightweight filter cassette holder is designed for attaching to a worker's collar and will accommodate either two or three-part 37-mm cassettes with or without a cyclone, 25-mm cassette with cowl, or DPM Cassette with a GS-1 Cyclone. Filter Cassette Holder includes 3 feet of 1/4-inch ID Tygon tubing.



Cat. No. .... 225-1

Diameter (mm)	Holder Description	Cat. No.	Qty.
13	2-section, polypropylene, Swinnex <b>Replacement silicone gaskets</b>	225-32 225-3201	10 100
13	2-section, stainless steel, Swinny	225-33	ea
25	2-section, inline, Delrin (acetal resin) with stainless steel support screen	225-1109	6
25	Open face, Delrin (acetal resin) with stainless steel support screen	225-1107	6
25 & 37	Filter Cassette Holder, <i>see left for details</i>	225-1	ea
47	Aluminum, inline, with stainless steel support screen	225-4701	ea
47	Polycarbonate, inline, with support	225-4702	ea
47	Stainless steel, inline, with stainless steel support screen	225-4703	ea
47	Aluminum, open face <b>Plastic cap</b> , protects after sampling	225-4704 225-4705	ea ea
47	Teflon (PFA) with 1/4-in ferrule nuts and wrench set. <i>For optimum seal, SKC recommends Teflon (PTFE) filters. Alternative filter materials may result in some leakage.</i>	225-1712	ea
47	Polypropylene, for vacuum and pressure air sampling applications, can be used with pressures up to 100 psig	225-1147	ea



Teflon, 47 mm  
Cat. No. 225-1712



Polypropylene, 13 mm  
Cat. No. 225-32



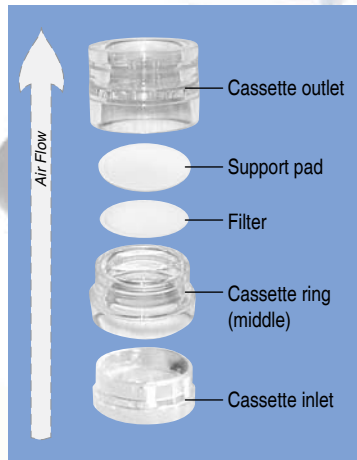
In-line Delrin, 25 mm  
Cat. No. 225-1109



Open-face Delrin, 25 mm  
Cat. No. 225-1107



In-line  
Aluminum, 47 mm  
Cat. No. 225-4701



In-line  
Polycarbonate, 47 mm  
Cat. No. 225-4702



In-line  
Stainless Steel, 47 mm  
Cat. No. 225-4703



Open-face Aluminum,  
47 mm with plastic cap  
Cat. Nos. 225-4704 and  
225-4705



Polypropylene, 47 mm  
Cat. No. 225-1147

## Supports for Filter Sampling

Some sampling procedures require support disks. Cellulose support pads feature a smooth surface and uniform airflow distribution. Porous plastic pads are impervious to most solvents. Use stainless steel screens when cellulose or plastic will interfere with analysis.

Diameter (mm)	Support Material	Cat. No.	Qty.
25	Cellulose pad	225-28	100
25	Stainless steel screen, wide mesh	225-2625	ea
25	Polypropylene pad (porous plastic)	225-2901	100
37	Cellulose pad	225-27 225-2700	100 500
37	Cellulose spacer ring (NIOSH 5506 and 5515)	225-23	25
37	Polypropylene pad (porous plastic)	225-2902	100
37	Stainless steel screen, wide mesh	225-26	ea
37	Stainless steel screen, fine mesh	225-2637	ea
47	Cellulose pad	225-2903	100
47	Stainless steel screen, wide mesh	225-2647	2

See Pump Calibration and Sampling with Filters and Cyclones at [www.skcltd.com/video/default.asp](http://www.skcltd.com/video/default.asp)

# Cassette Blanks

## SureSeal Certified Leak-free Cassette Blanks

Require the use of a SureSeal Cassette Opener (see p. 17)

Diameter (mm)	Type	Description	Cat. No.	Qty.
<b>Air Monitoring Cassette Blanks</b>				
25	2 pc	Styrene, clear	225-2-25LF 225-2258	50 100
25	3 pc	Styrene, clear	225-3-25LF 225-2259	50 100
25	Middle Ring	Styrene, clear, 1/2 in	225-300R	50
37	2 pc	Styrene, clear	225-2LF 225-2050LF	10 50
37	3 pc	Styrene, clear	225-2250 225-3LF 225-3050LF 225-3250	250 10 50 250
37	2 pc	Styrene, opaque brown	225-4	50
37	3 pc	Styrene, opaque brown	225-8451	50
37	Middle Ring	Styrene, clear, 1/2 in	225-304	50
<b>Solvent-resistant* Air Monitoring Cassette Blanks</b>				
<i>Compatible with most solvents*</i>				
25	2 pc, goblet style	Polypropylene, opaque white	225-8481	50
25	3 pc, goblet style	Polypropylene, opaque white	225-8585	50
37	2 pc	Polypropylene, opaque white	225-8483	50
37	3 pc	Polypropylene, opaque white	225-45 225-45A	10 50
<b>Conductive Air Monitoring Cassette Blanks</b>				
<i>For reducing sample loss due to electrostatic effects; required for asbestos sampling</i>				
25	3 pc, 2-in middle cowl	Polypropylene, conductive black	225-3-23	50
25	3 pc, 1/2-in middle ring	Polypropylene, conductive black	225-329	50
25	2 pc	Polypropylene, conductive black	225-2257	50
37	2 pc	Polypropylene, conductive black	225-308	50
37	3 pc	Polypropylene, conductive black	225-309	50
47	2 pc	Polypropylene, conductive black	225-8496	16
47	3 pc	Polypropylene, conductive black	225-8497	16

\* For solvent compatibility list, contact SKC or visit [www.skcinc.com](http://www.skcinc.com).

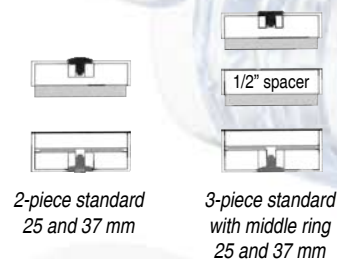
## Cassette Shrink Bands

Specifically designed for use with sampling cassettes, SKC Cassette Shrink Bands are self-sealing, provide a smooth writing surface for sample identification, and make tampering evident.

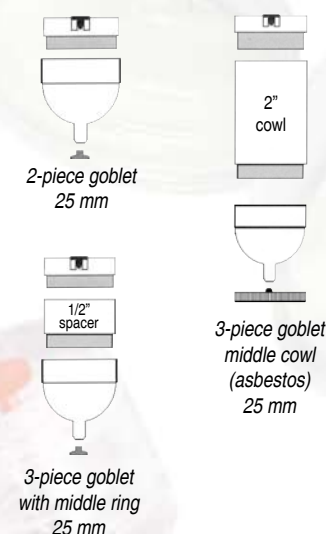
Fits Cassette Diameter (mm)	Color	Cat. No.	Qty.	Quantity Pricing	
				Cat. No.	Qty.
25	white	225-2503	100	225-2503A	1400
25	clear	—	—	225-2510	1400
25	yellow	—	—	225-2514	1400
37	white	225-25	100	225-25A	1000
37	clear	225-2509	100	225-2509A	1000
37	orange	225-2504	100	225-2504A	1000
37	yellow	225-2507	100	225-2507A	1000
37	red	225-2508	100	225-2508A	1000
37	blue	225-2511	100	225-2511A	1000
37	black	—	—	225-2515A	1000



## Standard-style Cassettes



## Goblet-style Cassettes



## Tech Tips

- ▶ Closed-face filter sampling requires a 2 or 3-piece cassette with the inlet section in place and the sealing plugs removed.
- ▶ Open-face filter sampling requires a 3-piece cassette with the cassette inlet section removed.
- ▶ Use a 3-piece cassette with SKC cyclones. Insert the cyclone into the middle ring.

## SKC Filter Sampling Accessories



### Petri Dish Slide

Easily transport filters up to 47 mm in diameter with the Petri Dish Slide. Its rectangular base fits most microscope stages, pk/100

Cat. No. .... 225-2-01



### Filter Transport Case

Conductive plastic case securely holds 25-mm filters for transport.

Cat. No. .... 225-67

### Microanalysis Filter Holder

Constructed of glass with stainless steel support screen to hold 25-mm filters for filtering small volumes of liquid for particulate analysis

Cat. No. .... 225-8380



### Sampling Labels

Identify samples with sample number, date, flow rate, pump number, time on, and time off, pk/500

Cat. No. .... 225-1370

*For filter support pads see page 14*

*For filter holders see page 14*

### Filter-Keeper Filter Transport and Storage

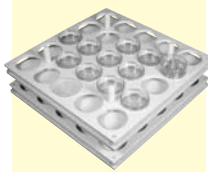
Minimize sample loss with static-dissipative plastic Filter-Keepers. The clamshell design locks the periphery of filters into place away from any surface. Eight Filter-Keepers can be kept in a numbered Filter-Keeper Archiving Tray that contains an area for labeling.



Description	Cat. No.	Qty.
25-mm Filter-Keepers include labels	225-8301	100
25-mm Filter-Keepers with 6 Archiving Trays include labels	225-8302	48
37-mm Filter-Keepers include labels	225-8303	100
	225-8303A	10
37-mm Filter-Keepers with 6 Archiving Trays include labels	225-8304	48
Archiving Trays Only	225-8305	6

### Kasset-Kaddy

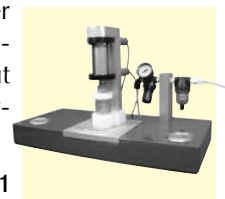
Each Kasset-Kaddy tray securely holds twenty-five 37-mm cassettes for convenient transport or storage. The polypropylene trays measure 10 x 10 inches to fit commercially available desiccators and ovens.



Cat. No. 225-8321 ..... pk/2

### Accu-Press Cassette Closer

Accu-Press Cassette Closer closes cassettes consistently, easily, and without damage to prevent air bypass and filter leakage.



Cat. No. .... 225-8361

### Aero-Chek® Cassette Leak Tester

Quickly and safely check cassettes for plastic-to-plastic leakage in the lab or in the field.



Cat. No. .... 225-8531

## Tubing for Air Sampling

Description/Applications	ID (inches)	OD (inches)	Cat. No.	Qty.
Tygon, sampling trains	$\frac{3}{16}$	$\frac{5}{16}$	225-1346	10 ft
Tygon, sampling trains; fits over impinger sidearm and inlet, filter cassette outlet, or Luer adapter	$\frac{1}{4}$	$\frac{3}{8}$	225-13-4A	3.3 ft
			225-13-4	10 ft
			225-1345	50 ft
Tygon, for calibrating QuickTake Pumps	$\frac{3}{8}$	$\frac{1}{2}$	225-1351	10 ft
			225-1352	50 ft
Latex Rubber, black, sampling trains	$\frac{3}{16}$	$\frac{5}{16}$	226-03-003	12 ft
Latex Rubber, black, sampling trains; fits over impinger sidearm and inlet, filter cassette outlet, or Luer adapter	$\frac{1}{4}$	$\frac{3}{8}$	226-03-004	12 ft
Latex Rubber, amber, sampling trains; fits over impinger sidearm and inlet, filter cassette outlet, or Luer adapter	$\frac{1}{4}$	$\frac{3}{8}$	225-1347	10 ft
Polyurethane, reinforced, sampling trains; fits over impinger sidearm and inlet, filter cassette outlet, or Luer adapter	$\frac{1}{4}$	$\frac{15}{32}$	225-1350	10 ft
Spring Tubing Supports, use with $\frac{5}{16}$ -in OD tubing to prevent kinking			225-1348	5



# SKC Filter Sampling Accessories

## SKC Filter Cassette Holder

The lightweight SKC Filter Cassette Holder attaches firmly to the collar for sampling in the breathing zone. Its special design securely holds a two or three-piece 37-mm cassette with or without cyclone, 25-mm cassette with cowl, or DPM Cassette with GS-1 Cyclone. The Filter Cassette Holder includes 3 feet of 1/4-inch ID Tygon tubing.



Cat. No. .... 225-1

## SureSeal Cassette Opener

The SureSeal Cassette Opener is a sturdy stainless steel crowbar with extended handle that makes opening 25 or 37-mm cassettes easy.



Cat. No. .... 225-13-5A

## Stainless Steel Filter Lifter

Speeds removal of filters from cassettes without damage



Cat. No. .... 225-13-7

## Calibration Jars

Constructed of rugged polypropylene, SKC Calibration Jars feature a quick-screw cap and barbed fitting for easy connection. Available in two sizes



### Standard Size

Cat. No. .... 225-111

### Large Size

Cat. No. .... 225-112

## Tubing, Collar Clip, and Cable Tie

Allow attachment of a sampling cassette to the collar. 30 inches (76.2 cm) of Tygon tubing (1/4-inch ID) and one alligator clip attached to a nylon cable tie are included.



Cat. No. .... 225-13-8

### Collar Clip and Cable Ties Only

Cat. No. 225-13-6..... pk/10

## Tripod Stand

Convenient for area sampling at breathing zone height, the SKC Tripod Stand telescopes to 5 feet and holds a 25 or 37-mm cassette. Stand is not intended to hold a pump.



Cat. No. .... 228-502

## Cassette Adapters

PVC Luer taper adapters connect a cassette to 1/4-inch ID tubing.



Cat. No. 225-13-2..... pk/10

Cat. No. 225-132A ..... pk/250

## Helmet Adapter\*

Ideal for welders or workers who wear a helmet with face shield. Effectively holds a filter cassette or sample tube in the breathing zone regardless of visor position.



Cat. No. .... 225-600

\* Developed in Canada by IRSST (Institut de recherche Robert-Sauvé en santé et en sécurité du travail du Québec)

## Glass Jars

Sturdy 37-mm glass jars with Teflon-lined caps are ideal for transport and solvent extraction of filter samples in the field or the lab



Cat. No. 225-8377..... pk/36

## Forceps

Non-serrated flat tips, for delicate membranes

Cat. No. .... 225-8371

Serrated pointed tips

Cat. No. .... 225-13-1

Teflon-coated pointed tips to avoid contaminants when sampling for hexavalent chromium

Cat. No. .... 225-1344

## Filter Handling Kit

Includes SureSeal Cassette Opener, filter lifter, and non-serrated flat-tip forceps all in a convenient carry case

Cat. No. .... 225-8372

*For sample pumps  
see pages 18 to 23*

# AirChek XR5000 Sample Pump

Extended Range to 5000 ml/min with Extended Run Times

- ❑ Extended flow from 5 ml to 5 L/min<sup>§</sup>
- ❑ Maintains constant flow at high back pressures
  - Up to 50 inches of water at 2 L/min
- ❑ ≥ 20-hour run times with Li-Ion battery
- ❑ Disposable alkaline battery option
- ❑ Battery status icon
- ❑ Highly accurate electronic flow control system<sup>‡</sup>
  - Compensates with ± 5% accuracy
  - Automatic flow correction for changes in temperature
- ❑ Timed shutdown and delayed start options
  - Easy-to-use timer can be set up to 9999 minutes
- ❑ Extremely simple operation
  - Three-button keypad
  - Continuous run at the touch of a button
  - Bright blue pump status LED
  - Easy-to-read LCD displays elapsed time and accumulated run time
- ❑ Lockable keypad
  - Protect settings
- ❑ Automatic flow fault and auto-restart to protect sample integrity
- ❑ Standard model weighs only 16 oz (454 grams)
- ❑ UL Listed for intrinsic safety (Li-Ion models)
- ❑ CE marked

§ 5 to 500 ml/min with low flow accessories; visit [www.skcinc.com](http://www.skcinc.com)  
‡ U.S. Patent No. 5,892,160



Small footprint!  
Only 16 oz!



Three battery options



Blue status LED

# AirChek XR5000 Sample Pump

With the Power of Li-Ion

- **3 interchangeable battery options**
  - **High-power** Li-Ion for extended runs
  - **Standard** Li-Ion for lighter weight
  - **Disposable alkaline** ready to go for emergency response
  
- **Enhanced battery power for extended run times!**

XR5000 Model	2 L/min	5 L/min
High-power Li-Ion	40 hrs	22 hrs
Standard Li-Ion	20 hrs	11 hrs
Alkaline	18 hrs	8 hrs

Results of run time tests using 37-mm 0.8- $\mu$ m MCE filters



Enhanced Battery Power for extended run times



*Partner AirChek  
XR5000 with SKC  
Size-selective Samplers  
Visit [www.skcinc.com](http://www.skcinc.com).*

Description	Cat. No.
<b>AirChek XR5000 with High-power Li-Ion*</b>	
<b>Pump with battery, requires charger, see kits or charger below</b>	210-5001
<b>Single Pump Kit</b> includes pump, charger, cassette holder, and soft-side nylon carry case	100-240 V 210-5001K
<b>5-pack High Flow Pump Kit</b> includes 5 pumps, cassette holders, and single chargers, in a Pelican case	100-240 V 210-5001K5A
<b>5-pack High/Low Flow Pump Kit</b> includes 5 pumps, cassette holders, adjustable low flow holders, constant pressure controllers, Type A tube covers, and single chargers, in a Pelican case	100-240 V 210-5001K5DA
<b>Replacement 4-cell Li-Ion Battery Pack</b>	P85004
<b>AirChek XR5000 with Standard Li-Ion*</b>	
<b>Pump with battery, requires charger, see kits or charger below</b>	210-5002
<b>Single Pump Kit</b> includes pump, charger, cassette holder, and soft-side nylon carry case	100-240 V 210-5002K
<b>5-pack High Flow Pump Kit</b> includes 5 pumps, cassette holders, and single chargers, in a Pelican case	100-240 V 210-5002K5A
<b>5-pack High/Low Flow Pump Kit</b> includes 5 pumps, cassette holders, adjustable low flow holders, constant pressure controllers, Type A tube covers, and single chargers, in a Pelican case	100-240 V 210-5002K5DA
<b>Replacement 2-cell Li-Ion Battery Pack</b>	P85002
<b>AirChek XR5000 with Alkaline — Not Intrinsically Safe</b>	
<b>Pump with 6 AA batteries</b>	210-5003
<b>5-pack High Flow Pump Kit</b> includes 5 pumps and cassette holders, in a Pelican case	210-5003K5
<b>5-pack High/Low Flow Pump Kit</b> includes 5 pumps, cassette holders, adjustable low flow tube holders, constant pressure controllers, and Type A tube covers, in a Pelican case	210-5003K5D
<b>Alkaline Battery Pack</b> includes 6 alkaline batteries	P75715
<b>AirChek XR5000 without Battery Pack</b>	210-5000NB
<b>Accessory</b>	
<b>Single Charger</b> , for high-power and standard Li-Ion pumps	100-240 V 223-241

\* AirChek XR5000 pumps with Li-Ion batteries may be subject to special shipping regulations dependent upon quantity.

# AirChek 2000 Sample Pump

PC-compatible for Advanced Scheduling and Record Keeping

## Schedule sample runs on PC!

Connect AirChek 2000 to your PC and use DataTrac 2000 Software to easily program single or multiple sampling schedules including delayed start, timed shutdown, and sequential sampling. A single schedule can be set manually using the pump's large integral keypad.

Flow Rate	Start Date	Start Time	Stop Date	Stop Time	Duration
10.0	Tue Feb 15 2008	5:00:00 PM	Feb 16	5:00:00	
10.0	Wed Feb 16 2008	5:00:00 PM	Feb 17	5:00:00	
10.0	Thu Feb 22 2008	5:00:00 PM	Feb 23	9:00:00	
5.0	Tue Mar 1 2008	12:00:00 PM	Mar 1	8:00:00	
5.0	Wed Mar 2 2008	3:00:00 PM	Mar 2	11:00:00	
5.0	Thu Mar 3 2008	3:00:00 PM	Mar 3	11:00:00	
8.0	Tue Mar 22 2008	11:00:00 PM	Mar 23	7:00:00	

Schedule it!

## Sample and record it!

A patented\* flow sensor acts as a secondary standard to accurately maintain set flow. AirChek 2000 records flow rate, run time, sample volume, and flow fault throughout the sampling period. View run time data during sampling on the pump LCD or on a PC in pump history.

Mode	Flow Rate	Start Date	Start Time	Volume (Liters)	Accum. Volume	Duration (Minutes)
76	Hold	13-Feb-08	8:57:44 AM			
77	Setup	13-Feb-08	8:58:44 AM			26:4.4
78	Hold	14-Feb-08	3:40:17 PM			
79	Run	14-Feb-08	3:40:15 PM	0.18	43.20	
80	Hold	14-Feb-08	3:40:17 PM			
81	Run	14-Feb-08	3:40:15 PM	0.50	43.61	
82	Hold	14-Feb-08	3:40:16 PM			
83	Run	14-Feb-08	3:40:25 PM	0.18	43.80	
84	Hold	14-Feb-08	3:40:27 PM			
85	Setup	14-Feb-08	3:47:29 PM			
86	Hold	14-Feb-08	4:07:52 PM			
87	Run	14-Feb-08	4:09:50 PM	20.20	143.10	
88	Flow AB	14-Feb-08	4:20:29 PM	0.00	133.1	
89	Run	14-Feb-08	4:20:41 PM	0.80	144.00	
90	Hold	14-Feb-08	4:20:45 PM			
91	Setup	14-Feb-08	4:33:49 PM			
92	Hold	14-Feb-08	4:39:30 PM			
93	Run	15-Feb-08	12:00:50 AM			
94	Setup	15-Feb-08	4:14:29 AM			

Download it!

## Download and report it!

Use your PC and DataTrac 2000 Software to download pump history, import data into your favorite software for report generation, or create a worker exposure profile for your occupational database.

Flow Setting	Actual Flow
750	752
1000	1009
2000	1995
3000	3003

Serial Number: 1203  
Calibration Date: Jan 14, 2008

Enter Calibration Date: Jan 14, 2008  
Enter Actual Flow @750: 752  
Enter Actual Flow @1000: 1009  
Enter Actual Flow @2000: 1995  
Enter Actual Flow @3000: 3003  
Enter Validation Code: 64510

Check Validation Code: Valid

Print Report

## CalChek it!

AirChek 2000 with the CalChek feature communicates directly with a Defender calibrator. Options include automatic single-point calibration for pre and post-sample collection or multiple-point calibration following pump maintenance. Partner AirChek 2000 and CalChek with your PC and DataTrac 2000 Software for documented calibration for ISO9000, TQM programs, and occupational health and safety management systems.



AirChek 2000 and Defender in CalChek calibration train

SKC AirChek 2000 Sample Sheet

Worker (last name): Steele | first: Alan

Sampling Site: Building 5

Sample Media: PVC Filter | Sample ID: 2

Method Followed: OSHA ID 142

Chemicals of Interest: Portland Cement (Silica)

Job Description: Monitor worker exposure

Pre-Sample Calib. SN: 24230 | Past-Sample Calib. SN:

Environmental Conditions

Humidity %: 25 | Atm. Pressure: 26.9

Analysis

Report it!

\* U.S. Patent No. 5,892,160

# AirChek 2000 Sample Pump

## Displays Flow Rate and Critical Parameters

### Advanced flow control

- Accurate internal flow sensor measures flow directly and acts as a secondary standard to maintain set flow
- Thermal and pressure sensors maintain flow calibration by compensating for differences between the temperature and atmospheric pressure at calibration and those during sampling

### Continuous sample volume calculations

- Flow rate, run time, volume, and flow fault are continuously recorded for accurate sample reporting

### Battery status display

### Convenient Low Flow Adapter Kit available for 5 to 500 ml/min

### Multi-tube sampling feature

- Save valuable time with simultaneous 2, 3, or 4-tube sampling

### Protective features

- Rugged, impact-resistant case with RFI/EMI shielding and cover-protected ports
- Automatic flow fault shutdown and restart
- Auto shut-off at low battery
- UL Listed for intrinsic safety



*Partner AirChek 2000  
with SKC Size-selective  
Samplers*

*Visit [www.skcinc.com](http://www.skcinc.com).*

Description	Cat. No.	
<b>AirChek 2000 Pump</b> with NiCad battery pack	210-2002	
<b>AirChek 2000 Pump Kits</b>		
<b>Single High Flow Sampling</b> includes pump as described above, single PowerFlex charger with cable, filter cassette holder, and soft-side nylon carry case†	100-240 V	210-2002K
<b>5-pack High Flow Sampling</b> includes 5 pumps as described above and filter cassette holders, and one 5-station PowerFlex charger with 5 cables, in a Pelican case	100-240 V	210-2002K5
<b>5-pack High and Low Flow Sampling</b> includes the above items, 5 adjustable low flow holders, 5 constant pressure controllers, and 5 Type A protective tube covers	100-240 V	210-2002K5D
<b>CalChek Pump Kits</b>		
<b>Single CalChek Kit (High Flow)</b> includes pump, single PowerFlex charger with cable, filter cassette holder, and Pelican case, CalChek communication cable, and Defender calibrator with charger	100-240 V	210-2DF1H
<b>5-pack CalChek Kit (High Flow)</b> includes items in 5-pack High Flow Kit, a CalChek communication cable, and a Defender calibrator with charger	100-240 V	210-2DF5
<b>Accessories</b>		
<b>Chargers</b>		
<b>PowerFlex 5-station</b> , requires pump cables sold separately, see below	100-240 V	223-1000
<b>PowerFlex Single</b> , requires pump cable sold separately, see below	100-240 V	223-2000
<b>PowerFlex Pump Cable</b> , for AirChek 2000		223-1001
<b>CalChek Communication Cable</b> , required for CalChek calibration, included in CalChek Kits above		210-502
<b>Battery Eliminator</b> , connects pump to line power for extended sampling	115 V 230 V	223-320 223-320B
<b>DataTrac 2000 Software</b> includes software on CD, DataTrac adapter, and DataTrac cable		877-91
<b>Low Flow Adapter Kit (5 to 500 ml/min)</b> includes constant pressure controller, single adjustable low flow holder, and Type A tube cover		210-500
<b>Pump Pouches</b>		
<b>Black</b>		224-88
<b>High-profile Red</b> , for easy observation		224-96A
<b>Black nylon</b> , noise-reducing		224-96C

† Single pump kits are also available in hard-sided Pelican case. Contact SKC.

*For more information  
on DataTrac 2000  
Software*  
Visit [www.skcinc.com/DataTrac/  
datatrac.asp](http://www.skcinc.com/DataTrac/datatrac.asp)

# Leland Legacy Sample Pump

## High Flow PM Sampling with Impactors or 37-mm Cassettes

### High Flows — 5 to 15 L/min

The high flows and long run times of a vacuum-style pump in a personal-size battery-operated sampler.

### Long Runs — 24 Hours on One Battery Charge

With its powerful rechargeable Li-Ion battery, Leland Legacy runs impactors and other sampling devices with low back pressures\* for 24 hours, making it ideal for indoor air studies and unattended ambient air sampling.

### Low Levels

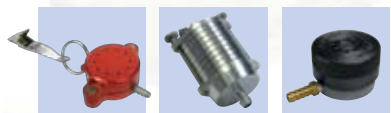
Longer runs at higher flows collect more sample enhancing the sensitivity of measurements, particularly in indoor air environments.

### Advanced Flow Control and Flexible Programming

Leland Legacy provides the ultimate in high flow sampling. A patented† internal flow sensor measures flow directly and acts as a secondary standard to constantly maintain set flow. Built-in sensors automatically compensate for differences in temperature and atmospheric pressure during sampling. Set Leland Legacy from its built-in keypad for a single run or program multiple runs with a PC and DataTrac for Leland Legacy Software.

### CalChek Automatic Calibration Feature

Direct communication to a Defender primary standard for fast, easy calibration without manual adjustments.



*Partner Leland Legacy with the PEM, Sioutas Impactor, or IMPACT Sampler.*

Visit [www.skcinc.com](http://www.skcinc.com).

*For more information on DataTrac Software*

Visit [www.skcinc.com/DataTrac/datatrac.asp](http://www.skcinc.com/DataTrac/datatrac.asp)



Description		Cat. No.
<b>Leland Legacy Pump***</b> with Li-Ion battery pack, requires charger, see kits or charger below		100-3002***
<b>Single Pump Kit***</b> includes Leland Legacy pump, single charger, and Pelican carry case	100-240 V	100-3002K***
<b>5-pack Pump Kit***</b> includes 5 Leland Legacy pumps, single chargers, and DataTrac Software, in a Pelican case	100-240 V	100-3002K5A***
<b>Single CalChek Kit***</b> includes items in a single pump kit, a CalChek communication cable, and a Defender calibrator with charger	100-240 V	100-3002DFK***
<b>5-pack CalChek Kit***</b> includes items in 5-pack pump kit, a CalChek communication cable, and a Defender calibrator with charger	100-240 V	100-3002DFK5***
Accessories		
<b>Single Charger#</b>	100-240 V	223-241#
<b>Battery Charging Adapter</b> , for charging batteries outside the pump		223-248
<b>CalChek Communication Cable</b> , required for CalChek calibration, included in CalChek Kits above		210-502
<b>DataTrac Software for Leland Legacy</b>		877-92

\* Leland Legacy is not recommended for high back pressure applications such as asbestos clearance sampling.

\*\* Leland Legacy pumps contain Li-Ion batteries and may be subject to special shipping regulations dependent upon quantity.

† U.S. Patent No. 5,892,160

# Use in non-explosive environments only. Not UL Listed for intrinsic safety

# DPS Particulate Sampler System

The Most Portable 24-hour Ambient PM System Available

- ❑ **Fits in one heavy-duty lockable carry case**
  - Only 13 pounds (5.9 kg)
  - Low shipping costs
- ❑ **Fast setup**
  - Disposable ready-to-use impaction disks — no cleaning or greasing
  - Pre-program system pump for unattended sampling
  - Quick-connect fitting for fast connection to IMPACT sampling head
  - IMPACT sampling head mounts virtually anywhere with quick-mount bracket
- ❑ **Validated and deployed by the U.S. Army**
- ❑ **Easy, secure operation**
  - Program pump using its integral 3-button keypad or a PC and DataTrac Software
  - Pump operates within lockable splash-resistant case
  - Convenient filter cassette and opener provides for fast media changes
  - Rain cover protects IMPACT sampling head
- ❑ **High-power Li-Ion battery provides 24-hour sampling on one charge**
- ❑ **Available with PM10 or PM2.5 IMPACT sampling head**



**IMPACT Sampling Head**  
The Heart of the DPS System



**Leland Legacy Sample Pump**  
The Power of the DPS System  
(protected by case during sampling)

See page 22 for details on the Leland Legacy Pump.



## DPS System\* Performance Profile

**Flow Rate**  
10 L/min

**Particle Collection Size**  
PM10 or PM2.5  
(model dependent)

**Run Time**  
> 24 hours (one battery charge)

**Power**  
Rechargeable Li-Ion battery,  
7.4 V, 12-Ah capacity

**Impaction Disks**  
37-mm, pre-oiled porous plastic

**Collection Filter**  
47-mm quartz or PTFE

**Case Dimensions**  
18.5 x 14.1 x 6.9 in  
(47 x 36 x 18 cm)

**System Weight**  
13 lbs (5.9 kg)

\* Provides data similar to data from Federal Reference Method samplers. The DPS System is not a Federal Reference Method sampler.

DPS System	Cat. No.	Qty.	
<b>DPS System<sup>#</sup></b> includes sample pump with connection case, 2 external battery assemblies, charger (100-240 V), IMPACT sampling head, 2 filter cassettes, calibration adapter, rain cover, 25 disposable impaction disks ( <i>limited shelf-life</i> ), filter cassette opener, tubing with quick-connect fitting, and mounting bracket in heavy-duty lockable carry case	<b>PM2.5 Kit</b>	<b>100-3903<sup>#</sup></b>	<b>ea</b>
	<b>PM10 Kit</b>	<b>100-3901<sup>#</sup></b>	<b>ea</b>
<b>Collection Filters for IMPACT Sampler (not supplied with DPS System)</b> <i>Select a filter based on your application; required for sampling</i>			
<b>Quartz Filters</b> , 47 mm, Tissuquartz, 432 µm thick	<b>225-1823</b>	<b>25</b>	
<b>PTFE (Teflon) Filters<sup>§</sup></b> , 47 mm, 2.0-µm pore size, with PMP support ring	<b>225-1747<sup>§</sup></b>	<b>50</b>	
<b>Accessories</b>			
<b>DataTrac for Leland Legacy Software</b> includes software on CD, DataTrac adapter, and DataTrac serial cable	<b>877-92</b>	<b>ea</b>	

§ Back pressure on PTFE (Teflon) filters can vary within the same lot.

# Contains Li-Ion batteries and may be subject to special shipping regulations dependent upon quantity

SKC Inc.  
863 Valley View Rd.  
Eighty Four, PA 15330 USA

PRESORTED  
STANDARD  
U.S. POSTAGE  
PAID  
PITTSBURGH, PA  
PERMIT NO. 1719

